

Patent claims

1. A heat exchanger tube (1), with an outside (4), lying on an outer surface (3), for action upon it by a steam medium (25) and with an inside (6), lying on an inner surface (5), for action upon it by a cooling medium (27), the outer surface (3) being provided with a first layer (7) reducing an adhesion of the steam medium (25) to the outer surface (3) and/or the inner surface (5) being provided with a second layer (9) reducing an adhesion of the cooling medium (27) to the inner surface (5), characterized in that the second layer (9) is configured as a layer reducing the encrustation on the inner surface (5), the second layer being configured as a biocidal layer.

2. The heat exchanger tube (1) as claimed in claim 1, characterized in that the first layer (7) and/or the second layer (9) are/is formed by a number of sublayers.

3. The heat exchanger tube (1) as claimed in claim 1, characterized in that, in the case of a coating (7, 9) of the heat exchanger tube (1) on both faces, the first layer (7) is produced differently from the second layer (9).

4. The heat exchanger tube (1) as claimed in one of claims 1 to 3, characterized in that the first layer (7) is configured as a layer reducing the surface tension of the outer surface (3).

5. A heat exchanger (17), with cooling medium routing (19) and with steam medium routing (21), the cooling medium routing (19) having a multiplicity of heat exchanger tubes (23) for the routing of cooling medium (27) on the inside (6) of a heat exchanger tube (1, 23), and the steam medium routing (21) being designed for the action of steam medium (25) upon an outside (4) of a heat exchanger tube (1, 23), characterized in that a heat exchanger tube (1, 23) is designed as claimed in one of the preceding claims.

6. The heat exchanger as claimed in claim 5, characterized in that the heat exchanger tube (1, 23) is designed as a longitudinally welded heat exchanger tube (1), in which a weld seam (13) runs along the elongate extent of the heat exchanger tube (1, 23) and, in the installed state of the heat exchanger tube (1, 23), is arranged on the top side (15) of the tube cross section.

7. The use of a layer material reducing an adhesion of a fluid to a surface for an outer surface (3) on an outside (4) of a heat exchanger tube (1, 23) for action upon it by a steam medium (25) and for an inner surface (5) on an inside (6) of the heat exchanger tube (1, 23) for action upon it by a cooling medium (27).

8. The use as claimed in claim 7, characterized in that the outer surface (3) is provided with a first layer (7) reducing an adhesion of the steam medium (25) to the outer surface (3), and/or the inner surface (5) is provided with a second layer (9) reducing an adhesion of the cooling medium (27) to the inner surface (5).

9. The use as claimed in claim 7 or 8, characterized in that the layer material is a material based on PTFE (polytetrafluoroethylene).

10. The use as claimed in claim 7 or 8, characterized in that the layer material is a material based on a carbon system.

11. The use as claimed in claim 7 or 8, characterized in that the layer material is a material based on an organic silicate network.